ASSESSMENT OF THE TECHNICAL EFFICIENCY OF SMALLHOLDER COFFEE FARMING ENTERPRISES IN MURANG'A, KENYA

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Abstract

Coffee is a major contributor to Kenya's foreign currency earnings, coming third after tourism and tea. An estimated six million Kenyans are directly or indirectly employed in coffee production, processing and marketing. However, production of coffee has declined significantly over the past decades, resulting in increased poverty in coffee-dependent communities. Using survey data of a randomly selected sample of 78 smallholder farmers in Murang'a County in Kenya, this paper used the Non-Parametric Data Envelopment Analysis (DEA) approach to estimate their technical efficiency. Results showed that the average technical efficiency was low at 54%. The findings show that the coffee variety, access to credit, the farmers' experience and farm size are critical determinants of technical efficiency among smallholder coffee farmers. The paper provides innovative arrangements that should be enhanced to increase farmers' capacity to efficiently use the available resources in coffee production.

Key words: Coffee production, technical efficiency, non-parametric, DEA